

REMARKS

Amendments

Claim 1 is amended to recite that the claimed device is a transistor device. Support for this amendment can be found throughout applicants' disclosure. See, e.g., page 10, lines 7-15. Claims 17-18 and 24-26 are amended to be consistent with the language of claim 1. Claims 2-13, 23 and 27 are amended to correct obvious typographical errors, and claim 19 is cancelled.

New claims 31-38 are directed to further aspects of applicants' invention and are supported throughout the disclosure. See, e.g., page 7, line 9 - page 9, line 19, page 10, lines 27-35, page 10, line 27 - page 12, line 24.

Rejection under 35 USC §102(b) in view of the abstract by Cadby et al.

Claims 1-7, 10, 11, and 29 are rejected as allegedly being anticipated in view of the abstract by Cadby et al. (CALPUS 2002:63007). This rejection is traversed.

The abstract by Cadby et al. discloses the homopolymer of 2,2'-(1,4-phenylene)bis[3-hexyl-thiophene]. Cadby et al. discuss a study on the effect of replacement of thienyl rings, in conjugated polymers, with furanyl or phenyl rings on intersystem crossing, particularly with respect to triplet dynamics.

Cadby et al. provides no disclosure or suggestion of any transistor device, let alone a transistor device in accordance with applicants' claimed invention. Thus, Cadby et al. clearly fails to anticipate applicants' claimed invention. Withdrawal of the rejection is respectfully requested.

Second Rejection under 35 USC §102(b)

Claims 1-7, 10, 11, 24, 25, and 27-29 are rejected as allegedly being anticipated in view of the abstract by Ng et al. (CALPUS 2000:634223), Yang et al, Ng et al. (CALPUS 2000:140376), or Ng et al. (CALPUS 1998:44686). This rejection is traversed.

The abstracts CALPUS 2000:634223, CALPUS 2000:140376, and CALPUS 1998:44686, disclose the monomers 2,2'-(1,4-phenylene)bis[3-butyl-thiophene], 2,2'-(1,4-

phenylene)bis[3-octyl-thiophene], and 2,2'-(1,4-phenylene)bis[3-dodecyl-thiophene] or homopolymers thereof. Yang et al. discloses the compounds 1,4-di(2'-(3-hexylthienyl))benzene and 1,4-di(2'-(4-hexylthienyl))benzene. See compounds 8a and 8b in scheme 2.

CALPUS 2000:634223 discloses that the polymers have liquid crystalline properties and electrochromism and formation of charge carrier when doped. CALPUS 2000:140376 discusses a study on the thermal stability of the mentioned polymers. CALPUS 1998:44686 discusses a study on the conductivity, thermal stability and fluorescence of the polymers.

Yang et al. discusses the luminescence of di(2'-thienyl)benzene based polymers.

None of these disclosures provide any description or suggestion of a transistor device, let alone a transistor device in accordance with applicants' claimed invention. Thus, each of these four references clearly fails to anticipate applicants' claimed invention. Withdrawal of the rejection is respectfully requested.

Rejection under 35 USC §103(a)

Claims 26 and 28 are rejected as allegedly being obvious in view of the abstract by Ng et al. (CALPUS 2000:634223), Yang et al, Ng et al. (CALPUS 2000:140376), or Ng et al. (CALPUS 1998:44686). This rejection is also traversed.

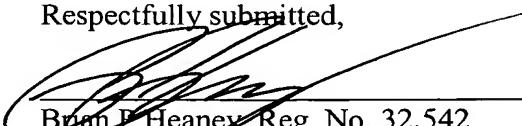
As discussed above, none of these disclosures provide any description or suggestion of a transistor device, let alone a transistor device in accordance with applicants' claimed invention. In the rejection it is asserted that because field effect transistors are known components useful for liquid crystal applications, it would be obvious to use the prior art compounds in FETs.

However, while a transistor may be part of a liquid crystal display, it is not an optical component of the display. It is used as an addressing means. The polymers in applicants' claimed invention are used as semiconductor or charge transport material in the transistor. Simply because a polymer has liquid crystal properties does not mean that the polymer can be used as a semiconductor material.

In view of the above remarks, it is respectfully submitted that none of the four references, taken alone or in combination with one another, renders obvious applicants claimed invention. Withdrawal of the rejection is respectfully requested.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,



Brian P. Heaney, Reg. No. 32,542
Attorney/Agent for Applicant(s)

MILLEN, WHITE, ZELANO
& BRANIGAN, P.C.
Arlington Courthouse Plaza 1, Suite 1400
2200 Clarendon Boulevard
Arlington, Virginia 22201
Telephone: (703) 243-6333
Facsimile: (703) 243-6410

Date: December 16, 2005